

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) In a discrete multitone (DMT) system, a method for transmitting data between a first device and a second device, the method comprising:

~~allocating~~ loading, by the first device, a predetermined number of bits of data for each of a plurality of N non-consecutive tones, where N is an odd integer tones;

transmitting, by a transmitter portion of the first device, redundant sets of data on each of ~~the~~ the plurality of N non-consecutive different tones, each of the redundant ~~the~~ sets of data including the predetermined number of bits of data, where each of the N non-consecutive tones is not adjacent in a frequency domain to other ones of the N non-consecutive tones;

receiving, by the second device, the redundant sets of data by the second device; and

identifying the data represented by the redundant sets of data using a voting scheme.

2. (currently amended) The method of claim 1, ~~wherein~~ where the predetermined number of bits of data comprises one bit ~~and the plurality of different tones comprises N tones, wherein N is an odd integer, and the transmitting comprises:~~

~~transmitting each bit of data on each of N non-consecutive tones,
wherein each of the N non-consecutive tones is not adjacent in a
frequency domain to other ones of the N non-consecutive tones.~~

3. (currently amended) The method of claim ~~[[2]]~~ 1, ~~wherein~~ where the identifying the data comprises:

decoding the N non-consecutive tones; ~~[[,]]~~ and

determining the identity of a data bit represented by a redundant set of data when more than one half of the decoded N non-consecutive tones correspond to a particular value.

4. (currently amended) The method of claim 1, ~~wherein~~ where the transmitting comprises:

transmitting a data bit representing a "1" with a maximum or near-maximum power level.

5. (currently amended) The method of claim 4, ~~wherein~~ where the transmitting further comprises:

transmitting a data bit representing a "0" with a zero or near-zero power level.

6. (currently amended) The method of claim 1, ~~wherein~~ where the transmitting redundant sets of data is performed during a training period.

7. (currently amended) The method of claim 1, ~~wherein~~ where the predetermined number of bits comprises a plurality of bits and ~~the plurality of tones comprises N non-consecutive tones, wherein~~ where the identifying comprises:

decoding the N non-consecutive tones to identify the plurality of bits,
and

voting on the identity of each of the plurality of bits on a bit-by-bit basis.

8. (currently amended) A first device ~~configured~~ to communicate using discrete multitone (DMT) modulation, comprising:

logic ~~configured to allocate~~ receive, from a second device, a first number of bits of data, transmitted on each tone of ~~for each of a first~~ plurality of tones;

logic to identify the first number of bits of data based on a voting scheme; and

~~logic configured to transmit~~ receive the identified first number of bits
associated with each tone of the plurality of tones ~~a redundant set of data,~~
~~via a second plurality of tones,~~ from the first ~~a second~~ device to the second
device ~~[[and]]~~, during at least a training period associated with the first
device and the second device

~~logic configured to identify the data based on a voting scheme.~~

9. (currently amended) The first device of claim 8, ~~wherein~~ where the
first plurality of tones comprises ~~comprise~~:

N tones, where N is an odd integer, and the first number of bits
of data comprises one bit.

10. (currently amended) The first device of claim 9, further
comprising:

~~logic configured to~~ ~~[[:]]~~ decode the first number of bits of data
transmitted on each of the N tones, and forward the decoded first number of
bits of data; and

~~wherein~~ where the logic ~~configured to~~ identify the first number of bits
of data comprises:

a voter ~~configured to~~ ~~[[:]]~~ receive the decoded first number of
bits of data, and determine that a bit is equal to a first value when more
than one half of the decoded N tones correspond to the first value.

11. (canceled)

12. (currently amended) The first device of claim [[11]] 8, ~~wherein~~
where the logic configured to receive a first number of bits of data is to
receive data transmitted, from the second device, transmit data is
~~configured to transmit~~ at a first power level for data representing a "1" and
~~transmit~~ transmitted at a second power level for data representing a "0."

13. (currently amended) The first device of claim [[11]] 8, ~~wherein~~
where the logic configured to receive a first number of bits of data is to
receive data, from the second device, transmit data is configured to transmit
~~data~~ representing a "1_i" using a first magnitude and phase_i, and ~~transmit~~
receive data representing a "0_i" using a second magnitude and phase_i, where
the second magnitude and phase are different than the first magnitude and
phase.

14. (currently amended) The first device of claim 8, further
~~comprising:~~ where the transmit logic configured to [[:]] transmit the
redundant set of data transmits the first number of bits of data on each tone
of the plurality of different tones, during the training period on each of a

~~plurality of different tones during a training period, wherein each of the
plurality of different tones carries the first number of bits.~~

15. (currently amended) The first device of claim 8, ~~wherein~~ where
the logic ~~configured~~ to identify the first number of bits of data is ~~configured~~
to:

decode the received ~~redundant set of~~ first number of bits of data, and
identify the first number of bits of data on a bit-by-bit voting.

16. (currently amended) A first device ~~configured~~ to communicate in a
discrete multitone (DMT) system, comprising:

a transmitter ~~configured~~ to transmit redundant data, including a
predetermined number of bits, on each of a first number of tones, where the
first number of tones are equally separated over a maximum number of
tones used in the DMT system, to a second device; and

a receiver ~~configured~~ to:

receive data transmitted on the first number of tones from the
second device, decode the data received on the first number of tones, and
determine the identity of the received data based on a determination that a
bit or group of bits is equal to a first value when more than one half of the
decoded first number of tones correspond to the first value.

17. (canceled)

18. (canceled)

19. (canceled)

20. (canceled)